

WHAT IS CLAIMED IS:

1. A method for broadcasting a digital program, comprising:
 - a. detecting the broadcasting quality of a normal program being broadcast;
 - 5 b. interposing a prearranged program if the detected broadcasting quality is below a predetermined value, the broadcasting quality of this prearranged program reaching a predetermined level.
2. The method according to claim 1, further comprising:
 - c. detecting an available broadcasting quality of the normal program
10 when broadcasting the prearranged program;
 - d. resuming broadcasting the normal program when the available broadcasting quality returns back to another predetermined value.
3. The method according to claim 2, further comprising the step before step d:
 - 15 e. detecting whether the broadcast of the inserted prearranged program has been finished.
4. The method according to claim 1, wherein said prearranged program is stored in a local storage in advance.
5. The method according to claim 4, wherein said prearranged
20 program comes from another program attached to the normal program being broadcast.
6. The method according to claim 1, further comprising:
 - g. getting statistics information for time and content type of the inserted prearranged program; said statistics information is used for charge.
- 25 7. The method according to claim 1, wherein step b further comprising:
 filling a cache used to store other program with the prearranged program
 if the detected broadcasting quality is below a threshold value, the threshold
 value being higher than said predetermined value;

wherein obtaining the prearranged program from said cache for broadcasting if the detected broadcasting quality is below a predetermined value.

5 8. The method according to claim 1, wherein said normal program is transmitted through a network.

9. The method according to claim 8, wherein step (a) comprising: detecting the filling status of the cache used for storing the normal program.

10 10. The method according to claim 8, wherein said prearranged program coming from a local server which has a specific broadcasting quality.

11. The method according to claim 8, wherein said prearranged program being stored in a local storage in advance, this prearranged program being downloaded from a network.

12. The method according to claim 8, further comprising:
15 sending a request for requiring a lost segment of the normal program because of the broadcast of the inserted prearranged program ;
receiving said lost segment of the normal program; and
combining the lost segment of the normal program with the subsequent normal program for continuously.

20 13. The method according to claim 12, wherein said combining step comprising:

storing the received lost segment of the normal program in a local storage;

storing the subsequent normal program in a local storage;

25 reading the received lost segment of the normal program from the stored subsequent normal program in a normal playback order for playing back.

14. A system for broadcasting a digital program, comprising:

a detecting apparatus for detecting the broadcasting quality of a normal program being broadcast;

a switching apparatus for interposing a prearranged program if the detected broadcasting quality is below a predetermined value, the broadcasting quality of this prearranged program reaching a predetermined level.

5 15. The system according to claim 14, wherein said detecting apparatus being also used to detect the available broadcasting quality of the normal program.

10 16. The system according to claim 14, wherein said switching apparatus being also used to resume to broadcast the normal program when the detected available broadcasting quality of the normal program returns back to another predetermined value when the prearranged program is being broadcast.

15 17. The system according to claim 14, further comprising: a statistical apparatus for getting statistics information for time and content type of the inserted prearranged program.

 18. The system according to claim 14, wherein said detecting apparatus including a cache controlling apparatus.

 19. The system according to claim 14, wherein said switching apparatus including a cache switching apparatus.

20 20. The system according to claim 14, wherein the normal program is transmitted through a network.